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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,968	10/23/2003	Fu Ching Lee		6458

7590 02/28/2005  
Fu Ching Lee  
P.O. Box 6611  
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EXAMINER

ALSOMIRI, ISAM A

ART UNIT PAPER NUMBER

3662

DATE MAILED: 02/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

### Application No.

10/690,968

### Applicant(s)

LEE, FU CHING

### Examiner

Isam A Alsomiri

### Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Stewart et al.**

**US 5,443,260.** Re claim 1, Stewart discloses in figures 1-2 a apparatus for determining the velocity of a projectile (baseball) moving along a trajectory, said apparatus comprising of: a first sensing plane 14 perpendicular to said trajectory comprising a plurality of light emitting devices 34 and a plurality of light sensitive detectors 32 (see Abstract), the light emitting device 34 being position to emit light beams to form a first light curtain in a plane perpendicular to said trajectory, the light sensitive detectors being position to form a first detecting plane perpendicular to said trajectory and parallel to said first light curtain, the said first detecting plane to be position close to the first light curtain so as to be able to detect reflected light from the first light curtain, the said reflected light as caused to be reflected as the projectile passes the first light curtain, the light sensitive detectors having the means for producing a first signal indicative of the entry of the projectile into the first light curtain; a second sensing plane 15 perpendicular to said trajectory comprising a plurality of light emitting devices 40 and a plurality of light sensitive detectors 38, the light emitting device being position to emit light beams to

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form a second light curtain in a plane perpendicular to said trajectory, the light sensitive detectors being position to form a second detecting plane perpendicular to said trajectory and parallel to said second light curtain, the said second detecting plane to be position close to the second light curtain so as to be able to detect reflected light from the second light curtain, the said reflected light as caused to be reflected as the projectile passes the second light curtain, the light sensitive detectors having the mean for producing a second signal indicative of the entry of the projectile into the second light curtain, the said second sensing plane being position parallel to said first sensing plane 153 and aligned with said trajectory a distance apart; and means responsive to said first and second signal for measuring the interval between the passage of said projectile through said first sensing plane to said second sensing plane for calculating a velocity corresponding to the measured time and the distance between said first and second sensing plane and displaying said calculated speed (see Abstract, col. 2 lines 9-55).

Re claim 2, Stewart teaches the light sources can be infrared light (see col. 1 line 29-32).

Re claim 4, Stewart teaches the detecting planes means comprises a plurality of openings with dimensional characteristics of a cylinder having a length much longer then the diameter of the opening to cause rejection of stray reflected light from being detected and allowing reflected light parallel to detecting plane from entering (see figure 4 [50-52]);

Re claim 5, Stewart discloses in figures 1-2 a method for determining the velocity of a projectile moving along a trajectory, said method comprising the steps of: emitting first parallel light beams 34 in a first direction perpendicular to said trajectory to form a first light curtain; detecting 32 reflected light from first light curtain as projectile passes said first light curtain; deriving a first signal indicative of said projectile entering said first light curtain; emitting a

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second parallel light beams 40 in a second direction perpendicular to said trajectory to form a second light curtain; detecting reflected 38 light from second light curtain as projectile passes said second light curtain, driving a second signal indicative of said projectile entering said second light curtain; determining the velocity of said projectile from said first and second signal comprises the steps of; recording the number of periods C (see figure 4 [counter]), generated by a clock source between said first signal and said second signal; and inherently calculating the velocity of said projectile by the following formula:  $X/C = \text{velocity in miles per hour}$ .

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 3 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Stewart et al. US 5,443,260.**

Re claim 3, Stewart teaches the light sensitive detectors comprises of infrared sensitive detectors (see col. 1 lines 29-32) and inherently ambient light rejection circuitry because only reflected light from the projectile when perpendicular the plane is detected not all other reflections. Stewart is silent about having amplifications; however amplifying the detected signals is very well known, and it is very obvious if not already inherent in Stewart's system. It would have been obvious to modify Stewart to include amplification to the detected signal to identify the signal better.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited to (Wilson; Hand et al.; Beeckel) show various systems for detecting velocity of projectiles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isam A Alsomiri whose telephone number is 703-305-5702. The examiner can normally be reached on Monday-Thursday and every other Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H Tarcza can be reached on 703-306-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Isam Alsomiri



February 16, 2005



THOMAS H. TARCZA  
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